SUSHMA DEEGOJU

Email: sushmadeegoju16@gmail.com
LinkedIn: https://www.linkedin.com/in/sushma-deegoju-vt/
Phone: +1540-998-4213

OBJECTIVE

Passionate graduate student with 2 years of industry experience as a software engineer at Samsung and a good understanding of software development life cycles looking for full-time opportunities to leverage my technical and problem-solving skills in a company that promotes work-life balance.

SKILLS SUMMARY

Programming languages : C++, C, JavaScript, Go, Python
Web Technologies : HTML, CSS, React.js, Vue.js, Node.js, Express.js, Rest API, Figma, Material-UI
Databases : MySQL, PostgreSQL, MongoDB
Others : JIRA, Gtest, SonarQube, Jenkins, Linux (proficient in Bash shell), GDB, Postman, GIT, Docker, GitLab, Visual Studio, Android Studio, IntelliJ, Perforce, Swarm, Wireshark

EDUCATION

- **Virginia Tech** — Blacksburg, VA
  Master's in Computer Science — *Aug 2022 - May 2024*
- **National Institute of Technology, Delhi** — Delhi, India
  Bachelor's in Computer Science — *Aug 2016 - Jun 2020*

EXPERIENCE

IT Security lab, Virginia Tech — Blacksburg, VA
Web Developer — *Feb 2023 - present*

- Developed a **React.js**, **Golang**, and **PostgreSQL**-powered **Key Metrics** app, enabling 25% faster data visualization and real-time monitoring.
- Built a scalable and user-friendly VT Minimum Security Standards website using **React**, **Go**, and **PostgreSQL**, leading to a 30% rise in website traffic within the first quarter.
- Developed an efficient **Hugo**-powered website for IT Security Lab, achieving 50% faster page load times and improved user experience.
- Actively involved in project planning, development, and deployment within the IT Security Lab, utilizing GitLab and Slack for seamless collaboration and communication.
- **Tech Stack:** React.js, Material-UI, Golang, PostgreSQL, Postman, GitLab, Slack

Samsung R&D Institute — Bangalore, India
Senior Software Engineer — *Mar 2022 - Aug 2022*

- Integrated a new feature into the existing QUIC protocol implementation using **C++** to parse multiple crypto frames in a single TCP packet. This resulted in a **50%** improvement in detecting QUIC-utilizing applications.
- Conducted thorough integration testing on **Linux-based** servers, identifying and resolving issues promptly for seamless system performance.
- Developed a Multi-layered traffic classification model using Neural Networks and achieved the accuracy of **97%**.
- Led a project mentoring an intern in integrating Machine Learning frameworks into DPI for real-time algorithm performance testing.
- **Tech Stack:** C++, Bash, Python, Gtest, SonarQube, Jenkins, GDB, Wireshark, Perforce, Swarm, JIRA

Samsung R&D Institute — Bangalore, India
Software Engineer — *Aug 2021 - Feb 2022*

- Optimized the performance of Deep Packet Inspection (DPI) Engine by sending less number of bytes for detection. Implemented the code in **C++** and received the **Spot Award** for improving the operation time by **100%**.
- Automated the regression testing environment using **Python** scripts, improving operational efficiency by **83%** and test execution speed.
- Used **GDB** for precise code debugging, employing breakpoints, watchpoints, and stack analysis ensuring efficient issue resolution.
- Improved the robustness of DPI solution by writing unit test cases using **Gtest** framework to increase the code coverage from **40%** to **90%**.
- Used **SonarQube** and **Jenkins** to ensure code sanity by integration testing and continuous code quality monitoring.
- **Tech Stack**: C++, Bash, Python, Gtest, SonarQube, Jenkins, GDB, Wireshark, Perforce, Swarm, JIRA

PROJECTS

Key Metrics — *IT Security Lab, Virginia Tech*

- Developed the **Key-Metrics** application, designed to aggregate and visualize real-time data from diverse platforms using ServiceNow APIs.
- Developed interactive bar charts using **Material-UI**, enabling intuitive data exploration and visualization, leading to a 25% increase in incident prediction accuracy.
- Improved data accessibility for IT security analysts, leading to 38% reduction in incident response time.
- Reduced data retrieval time by 40% through optimized API integration and efficient back-end processing, improving analyst workflow.
- **Tech Stack:** React.js, Material-UI, Golang, PostgreSQL, Postman, GitLab, Slack

VT Minimum Security Standards — *IT Security Lab, Virginia Tech*

- Developed a high-availability VT Security Standards website using **React, Golang, and PostgreSQL**, capable of handling 5,000 concurrent users with minimal latency.
- Leveraged React's virtual DOM for efficient rendering and PostgreSQL's indexing and query optimization for swift data processing.
- Implemented caching strategies for frequently accessed data, further enhancing site performance and reducing server load by 25%.
- Increased site traffic by 30% after launch, demonstrating strong user adoption and website's effectiveness in providing vital information.
- **Tech Stack:** React.js, Material-UI, Golang, PostgreSQL, Postman, GitLab, Slack

EasyHire (https://github.com/Sushmadeegoju/EasyHire-CareerFairPlatform) — *Virginia Tech*

- Implemented a dynamic career fair platform, using **React.js** for the front-end, **Node.js** for the back-end, and **MongoDB** as the database.
- Engineered a scalable and responsive platform, integrating authentication systems, real-time updates, and interactive user interfaces to optimize jobseeker-recruiter interactions.
- Incorporated Node Mailer API within Express framework to send email notifications, enhancing the project's functionality.
- **Tech Stack:** React.js, Node.js, MongoDB, Express.js, JIRA, Git

CERTIFICATIONS AND AWARDS

- Spot Award for the best performance in the month of October 2020 - Samsung R&D Institute, Bangalore.
- Second Runner-up at the American Express Makeathon-2019.